Fermilab

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Director's Office

December 20, 1999

Harry Weerts
Mike Tuts
John Womersley
D0 Assembly Building, MS 357

Dear Harry, Mike, and John:

Over the past several months D0 has worked with the laboratory to develop a more realistic plan to which we are all committed and which starts Collider Run II on March 1, 2001. Following the announcement in October of the new laboratory schedule both CDF and D0 have undergone DOE Project Reviews which have concluded that the schedule is "achievable, but optimistic." While this is an improved perception when compared to previous reviews it still reflects a judgement that there remains substantial risk in achieving our goal. I think this judgement is shared by all of us.

We have discussed for some time the desirability of developing "fall-back" plans and "descope options" which could be implemented to recover unanticipated schedule delays. Considering the inherent risks in achieving the March 1, 2001, milestone we now wish to press forward with the development of optional scenarios. The laboratory has committed to providing to DOE a description of this planning process by mid-January, 2000. By January 31, 2000, we wish to have identified fallback plans and descope options. By May 2000 we want to have in place fully detailed plans including fallback positions and descoping so that we can decide to follow them if necessary to maintain with certainty the March 1, 2001, milestone.

In order to develop these plans we ask that you undertake to do a schedule risk analysis for all subsystems including "installation and commissioning." This analysis should answer the following questions: What can go wrong? What is the likelihood that it will go wrong? What is the schedule impact if it goes wrong? This analysis should lead to a good understanding of the schedule risks for each subsystem. Perhaps this already exists.

For all subsystems and concentrating on those subsystems with the highest schedule risk identify activities that could be delayed or components that could be deferred in

order to recover schedule delays should anything actually go wrong? An itemized list of these fall back positions and descope options should be made for each subsystem. The amount of time to be gained in the schedule should be estimated for each option. Examples that come to mind are the delay of some channels of read-out electronics and staging of the silicon detector. The schedule risk analysis and the lists of options and fallback positions should be presented to the laboratory by January 31, 2000.

Following the understanding of viable fall-back positions and descope options you should then incorporate options into your schedule with milestones for when a decision to implement an alternate course will have to be made. This schedule should have high probability for success with sufficient contingency or float. It should be presented to the laboratory by March 15, 2000, so that we can converge on an agreed upon plan by May 2000 before your next project review as recommended.

Sincerely,

Ken Stanfield

Cc: M. Shaevitz
M. Witherell